



MASTER FILE

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DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES # G - 9

MEMORANDUM FOR Michael Longini
Chief, Decennial Systems and Contract
Management Office

Attention: Decennial Design, Policy and Management Branch

Through: Howard Hogan *Howard Hogan*
Chief, Decennial Statistical Studies Division

From: Joseph D. Conklin *JDC*
Decennial Statistical Studies Division

Subject: Observation at R.R. Donnelley in Seymour, IN

INTRODUCTION

To understand first hand the Quality Assurance (QA) activities being implemented for printing and to obtain a tour of a printing plant, I visited the R.R. Donnelley plant in Seymour, IN on May 19, 1999. This R.R. Donnelley plant is currently printing the long form enumerator questionnaire.

The plant, located in rural south east Indiana approximately 60 miles north and east of National Processing Center (NPC), occupies two two-story buildings in an industrial park of several hundred acres on the outskirts of Seymour, IN. Lighting and housekeeping were adequate. The plant was recently acquired by R.R. Donnelley. The day of the visit several fork lifts were in operation as the plant's equipment was being updated. It appeared to be clean, organized, and well lit. The plant has an active Material Safety Data Sheet program.

Points of contact were government-on-site monitors from the Government Printing Office (GPO) and Decennial Systems and Contract Management Office (DSCMO) as well as the R.R. Donnelley customer service representative for this contract.

COMMENTS

A. GPO Monitor

Pat Morrissey, the GPO monitor, said things are going well at the plant. He has noticed samples that are barely rejectable for solid yellow, but this is not allowing for the effect of dryback. The press lowered the setting for solid yellow at Mr. Morrissey's suggestion. Occasional spots and marks also appear on samples. So far there have been no serious defects to respond to.

Mr. Morrissey has seen two cases of defects that can be attributed to the condition of the paper being used. Approximately 100 samples are being mailed to the NPC each day. Mr. Morrissey is interested in learning what NPC's findings are.

The R.R. Donnelley inspectors received minimal training on the NPC software. This system was grafted on top of the company's current system for recording defects. Two full time quality control people per shift inspect samples for both color and visual inspection attributes. They do not have any problem using the software.

There were some problems entering production figures into the Internet. Bob Peregoy from DSCMO came in and corrected these. Production figures should follow on a regular basis now.

If the software remains open too long, it loses the capability to recognize the spectrophotometer. To avoid this problem, the inspectors are being told to close out the software at the end of their shifts. The measurements of the Donnelley and government inspectors agree with each other. The densitometer is at the press. Spectrophotometric measurements are taken in the back office.

Mr. Morrissey says the Donnelley people have been faithful in responding to signs of problems. There is a daily calibration of instruments as well as a discussion of current production issues. The plant management is accessible to the press people in case they need help.

The same people have staffed the press jobs and quality control positions since the start of printing the long form enumerator questionnaire.

An upcoming issue is the transition to a new batch of ink. Mr. Morrissey will monitor the situation to make sure the production continues to run well.

B. DSCMO Monitor

Mary Tucker, the DSCMO monitor, spoke about quality issues. The biggest quality issue relates to a misunderstanding of the inspectors in recording defects. They were not recording visual inspection failures in the NPC software. They recorded failures on the company forms, took corrective action on the press, and remeasured. The passing data on the remeasures was entered into the software instead of the original defective data.

The onsite monitors and the QA supervisor have explained the need to enter the original defective data into the software. Ms. Tucker said the future outputs of the visual inspection will need to be tracked to confirm failures are recorded in the software.

Maintaining consistent color on both sides of the form is a constant challenge. The yellow density measurements fail from time to time when the samples are fresh. Ms. Tucker is not sure how much dryback the samples will experience, and so it is hard to say to what extent this would bring the yellow density back into specification.

The day before the visit R.R. Donnelley had agreed to lower the setting for solid yellow to minimize the probability of failures. A new color roller was also installed.

The solid black density is running low but not enough to fail. Ms. Tucker has noticed some cases of picking--the appearance of white spots on the black ink. R.R. Donnelley says this is due to the condition of the paper. Many cases of breaks can be seen in the printed letters, but there have not been enough per page to result in a failure.

A QA supervisor with thirty-seven years experience oversees the work of the inspectors. As soon as a defective sheet is found, it is discarded and corrective action is taken at the press.

When making the prior to production samples for the Puerto Rico form, R.R. Donnelley had a hard time controlling the wrinkling at the perforation. The perforation procedure was changed to eliminate wrinkles.

The Scitex imaging heads have presented few problems. They are changed when problems are encountered.

Ms. Tucker confirmed the observation Mr. Morrissey had made about how the software can lose the ability to recognize the spectrophotometer if it is left on too long. There were no problems with reading bar codes or MAD97 check digits.

The bindery at Gallatin, TN called to report a problem with insufficient margins after final trim. Fourteen to sixteen palettes from the bindery were returned to Seymour. They are being sorted through to find and eliminate all cases of insufficient trim.

Ms. Tucker says the measuring equipment is working fine. All densitometers are calibrated to a common card. This maintains the consistency of readings. The spectrophotometers are calibrated within the NPC software and they also work fine. There are no problems with the bar code readers. It takes twenty minutes to inspect a sample.

After talking, Ms. Tucker spent forty minutes to inspect a sample. She transmitted data after that. It took less than five minutes to complete the transmission. She noticed a large black spot in one of the areas of the form for writing in numbers. She made a note to discuss it with the QA supervisor.

C. R.R. Donnelley Personnel Comments

The customer service representative and the clerk in charge of transmitting QA data answered some questions about miscellaneous quality and data issues. The customer service representative said one of the plant's four presses was assigned for the long form enumerator questionnaire. Web breaks on the press have been few and very far between.

With the recent acquisition of the plant by R.R. Donnelley, new production and inventory control methods are being implemented. An apprenticeship/employee certification program is being contemplated, but a start date has not been fixed. The customer service representative favors certification to International Standards Organization 9000, but there are no company plans to pursue it. Employee suggestions are welcome, but the company has no formal program in place to solicit or evaluate them. The press people are experienced. The customer service representative estimates the average experience level at five years.

The data transmission clerk thought the NPC software was very easy to learn. It took her approximately an hour.

The clerk measures color, density, and bar code readings on samples. She estimates a sample takes twenty minutes to measure. The biggest inconvenience is being kicked out of the software if it runs more than two hours. The current screen's information is lost. Approximately one hour of each twelve hour shift is spent rekeying data that is lost in this way.

To insure uninterrupted use of the spectrophotometer, the clerk has to remember to close it out. It would be convenient if this could be made to happen automatically. Between 100 to 150 samples are shipped daily to NPC.

CONCLUSIONS

The conclusions from the trip are:

1. Production is running smoothly.

2. The onsite monitors are in regular communication with the plant personnel.
3. The contractor is tracking his quality sample shipments to NPC.
4. The visual inspection at the press should be monitored to make sure failing data is entered into the software and not only on the company's own record sheet.
5. The onsite monitors should confirm the quality performance remains the same after the ink batch is changed.
6. At the next start up of live production, census should confirm the press inspectors understand the requirement to record original defects in the NPC software.
7. At the next start up of live production, the contractor should be reminded not to close out the NPC software at the end of the shift so that the spectrophotometer can be recognized.

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